

IN THE CLAIMS

1. (currently amended) A feature laden Ethernet switch comprising:

a plurality of ports, said Ethernet switch configured to be operable above a temperature of approximately 55° C, said switch further configured to support at least one high-end feature, and said Ethernet switch configured to separate, into a plurality of virtual local area networks, an industrial environment network within an industrial environment other than a temperature controlled environment, wherein said Ethernet switch configured to transfer data between the temperature controlled environment and the industrial environment;
and

a plurality of diagnostic contacts comprising a contact for each said port.

2. (original) An Ethernet switch in accordance with Claim 1 wherein said switch is further configured to be upgradeable using a plug in device.

3. (original) An Ethernet switch in accordance with Claim 1 wherein said at least one high-end feature includes at least one of a Virtual Local Area Network (VLAN), a Quality of Service (QoS), a Remote Monitoring (RMON), and a Spanning Tree.

4. (canceled)

5. (original) An Ethernet switch in accordance with Claim 1 wherein said switch is configurable in at least one of an audible failure mode and an auto-enunciation mode.

6. (original) An Ethernet switch in accordance with Claim 1 wherein said switch is further configured to be operable within a non-condensing humidity range of at least between approximately 10% and approximately 95%.

7. (original) An Ethernet switch in accordance with Claim 1, wherein said switch further comprises at least one of an infrared (IR) interface and a radio frequency (RF) interface operationally coupled to at least one of said ports.

8. (previously presented) A production system comprising:

at least one office device comprising a plurality of office devices;

at least one industrial device comprising a plurality of industrial devices; and

at least one feature laden Ethernet switch positioned in an industrial environment and coupling said at least one office device to said at least one industrial device, said Ethernet switch comprising a plurality of ports and configured to be operable above a temperature of approximately 55° C, said switch further configured to support at least one high-end feature, said switch configured to maintain said office devices in an office device VLAN, said switch configured to maintain said industrial devices in one of a VLAN separate from said office device VLAN and a plurality of VLANs all separate from said office device VLAN.

9. (canceled)

10. (original) A production system in accordance with Claim 8 wherein said switch is further configured to be upgradeable using a plug in device.

11. (previously presented) A production system in accordance with Claim 8 wherein said at least one high-end feature includes at least one of a Virtual Local Area Network (VLAN), a Quality of Service (QoS), a Remote Monitoring (RMON), and a Spanning Tree.

12. (previously presented) A production system in accordance with Claim 8 wherein said switch is further configured to be operable within a non-condensing humidity range of at least between approximately 10% and approximately 95%, and said switch further

comprises at least one of an infrared (IR) interface and a radio frequency (RF) interface operationally coupled to at least one of said ports.

13. (canceled)

14. (previously presented) A production system in accordance with Claim 8 wherein said plurality of VLANs comprises:

at least one control VLAN; and

at least one input/output (I/O) VLAN.

15. (previously presented) A production system in accordance with Claim 8 wherein said at least one Ethernet switch coupling said at least one office device to said at least one industrial device further comprises at least two Ethernet switches redundantly coupling said at least one office device to said at least one industrial device.

16. (original) A production system in accordance with Claim 15 wherein each said Ethernet switch comprises a plurality of ports, each said Ethernet switch configured to be operable within a temperature range of at least between approximately 0° C and approximately 60° C, each said switch further configured to be operable within a non-condensing humidity range of at least between approximately 10% and approximately 95%, each said switch further configured to support at least one of a Virtual Local Area Network (VLAN), a Quality of Service (QoS), a Remote Monitoring (RMON), and a Spanning Tree.

17-19. (canceled)

20. (original) A production system in accordance with Claim 8 wherein said Ethernet switch configured to be stackable with a second switch.

21. (original) A production system in accordance with Claim 8 wherein said Ethernet switch configured to transmit data at a speed of at least one Gigabit per second.

22. (original) A production system in accordance with Claim 8 wherein said Ethernet switch configured to operate substantially at wire speed.

23. (original) A production system in accordance with Claim 8 wherein said Ethernet switch configured to support a Virtual Local Area Network (VLAN), a Quality of Service (QoS), a Remote Monitoring (RMON), a Simple Network Management Protocol (SNMP), and a Spanning Tree.

24. (previously presented) A method for networking comprising:

positioning at least one device in an office environment (office device);

positioning at least one device in an industrial environment (industrial device);

positioning at least one Ethernet switch in the industrial environment, wherein the Ethernet switch comprises a plurality of ports, the Ethernet switch configured to be operable within a temperature range of at least between approximately 0° C and approximately 60° C, the switch further configured to be operable within a non-condensing humidity range of at least between approximately 10% and approximately 95%, the switch further configured to support at least one of a Virtual Local Area Network (VLAN), a Quality of Service (QoS), a Remote Monitoring (RMON), and a Spanning Tree;

coupling the office device to the industrial device via the Ethernet switch;

maintaining the office device in an office device VLAN; and

maintaining the industrial device in a VLAN separate from said office device VLAN.

25. (canceled)

26. (previously presented) A method in accordance with Claim 24 further comprising maintaining a plurality of industrial devices in a plurality of VLANs all separate from said office device VLAN.

27. (previously presented) A method in accordance with Claim 26 wherein said positioning at least one device in an office environment (office device) comprises positioning a plurality of devices in an office environment (office devices), said method further comprising:

maintaining the office devices in the office device VLAN, wherein said plurality of VLANs comprise:

at least one control VLAN; and

at least one input/output (I/O) VLAN.

28. (original) A method in accordance with Claim 24 wherein said positioning at least one Ethernet switch comprises positioning at least two Ethernet switches redundantly coupling the office device to the industrial device.